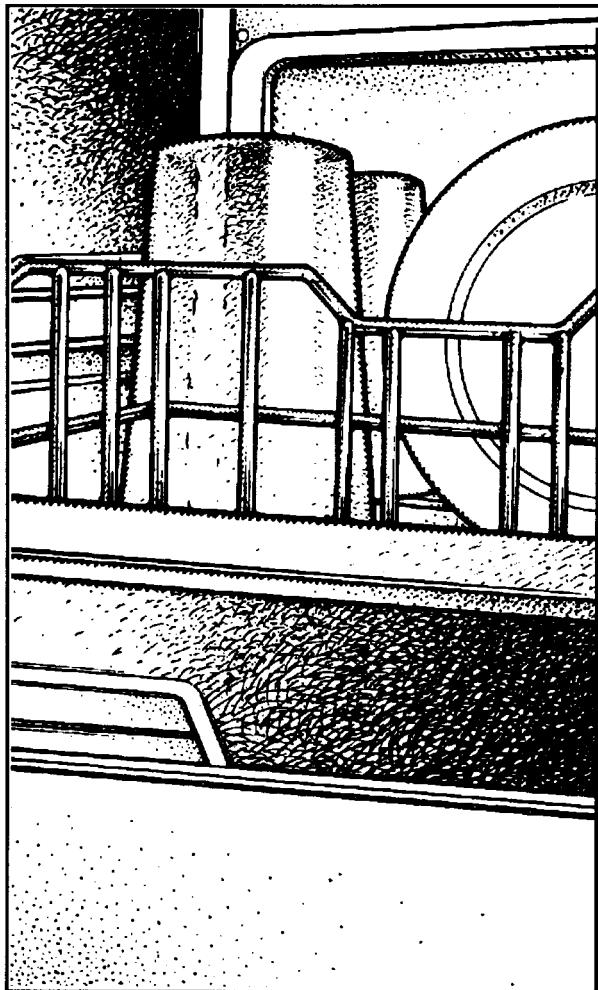


Use and Care Guide



KitchenAid®

FOR THE WAY IT'S MADE.™

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1-800-422-1230

Call our Consumer Assistance Center
with questions or comments.

KITCHENAID® Undercounter Dishwasher

Models: KUDI230B, KUDI23HB

9-95

A Note to You

Thank you for buying a KitchenAid® appliance!

KitchenAid appliances have everything you would expect of a superior appliance, plus the distinct style and thoughtful details which contribute to the overall look of your home and your enjoyment of it. To ensure that you enjoy many years of trouble-free operation, we developed this Use and Care guide. It contains valuable information concerning how to operate and maintain your new appliance properly and safely. Please read it carefully.

Also, please complete and mail the enclosed Product Registration Card.

Your safety is important to us.

This guide contains safety symbols and statements. Please pay special attention to these symbols and follow any instructions given. Here is a brief explanation of the use of each symbol.

WARNING

This symbol will help alert you to such dangers as personal injury, burns, fire, and electrical shock.

CAUTION

This symbol will help you avoid actions which could cause product damage (scratches, dents, etc.) and damage to your personal property.

Our Consumer Assistance Center telephone number, **1-800-422-1230, is toll-free 24 hours a day.**

If you ever have a question concerning your home appliance's operation, or if you need service, first see "If You Need Assistance or Service" on page 31. If you need further help, call our toll-free Consumer Assistance Center telephone number for help. When calling, you will need to know your appliance's complete model number and serial number. You can find this information on the model and serial number label (see diagram on page 5). Record these numbers and purchase information below. You will need this information if you require service. Keep this book and the sales slip together in a safe place for future reference.

NOTE: You must provide proof of purchase or installation date for in-warranty service.

Model Number _____

Serial Number _____

Date Installed _____

Builder/Dealer Name _____

Address _____

Phone _____

Understanding Dishwasher Safety

IMPORTANT SAFETY INSTRUCTIONS

⚠️ WARNING

To reduce the risk of fire, electrical shock, or injury when using your dishwasher, follow basic precautions including the following:

- Read all instructions before using the dishwasher.
- Use your dishwasher only for the uses described in this manual.
- **DISHWASHER MUST BE ELECTRICALLY GROUNDED.** Read the Installation Instructions for details.
- When discarding an old dishwasher, always remove the door to prevent accidental entrapment or suffocation.
- Use ONLY detergents and rinse agents recommended for use in a dishwasher.
- Store dishwasher detergent in a cool, dry place **WHERE CHILDREN CAN'T REACH IT.**
- When loading items to be washed:
 - Load sharp items and knives with the handles up to reduce risk of cut-type injuries.
 - Locate sharp items and knives so that they are not likely to damage the door seal.
- DO NOT let children play in or on the dishwasher.
- DO NOT wash plastic items unless marked "dishwasher safe" or the equivalent. If not marked, check manufacturer's recommendations.
- DO NOT reach into the area below the bottom rack until the heating element has cooled for at least 20 minutes.
- DO NOT use your dishwasher unless all enclosure panels are properly in place.
- DO NOT sit on, stand on, or abuse the dishwasher door or dishracks.
- DO NOT tamper with controls.
- If hot water has not been used recently (usually two weeks or longer), hydrogen gases may build up in the water heater and the hot water pipes. **HYDROGEN GAS IS EXPLOSIVE.** To prevent injury or damage, before using your dishwasher, turn on all hot water faucets and allow water to run for several minutes. This will allow gases to escape.
 - Do not smoke or use any open flame near the faucet while it is open.
- DO NOT store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance. The fumes can create a fire hazard or explosion.
- Disconnect electrical power to the dishwasher before attempting to service.

—SAVE THESE INSTRUCTIONS—

Help us help you

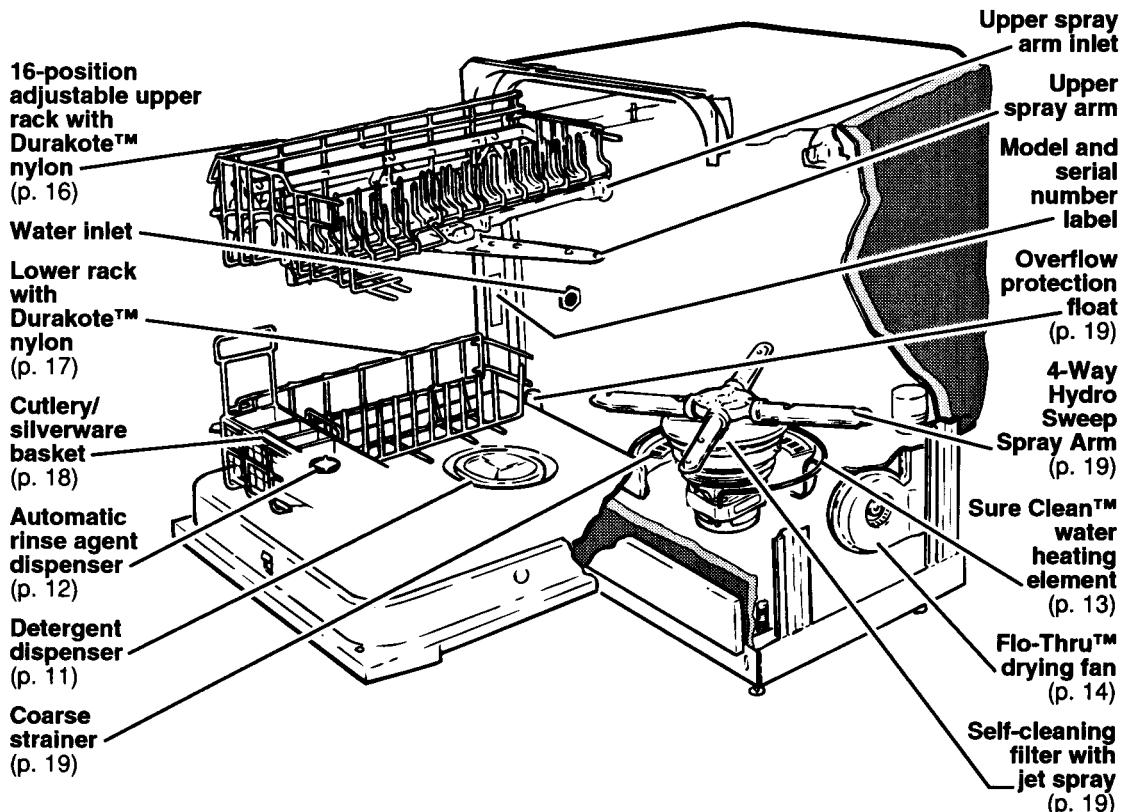
Please:

- Have your dishwasher installed by a qualified installer.
- Install where dishwasher is protected from the elements. Protect against possible rupture of fill valve by freezing. Such ruptures are not covered by the warranty. See winter storage information on page 20.
- Install and level dishwasher on a floor that will hold the weight, and in an area suitable for its size and use.
- Properly connect dishwasher to electricity, water, and drain.*
- Remove all shipping plugs from hoses and connectors (such as the cap on the drain outlet) before installing.*
- Remove all hang tags and temporary labels.
- Make sure dishwasher is not used by anyone unable to operate it properly.
- Properly maintain dishwasher. See page 19.

* See Installation Instructions for complete information.

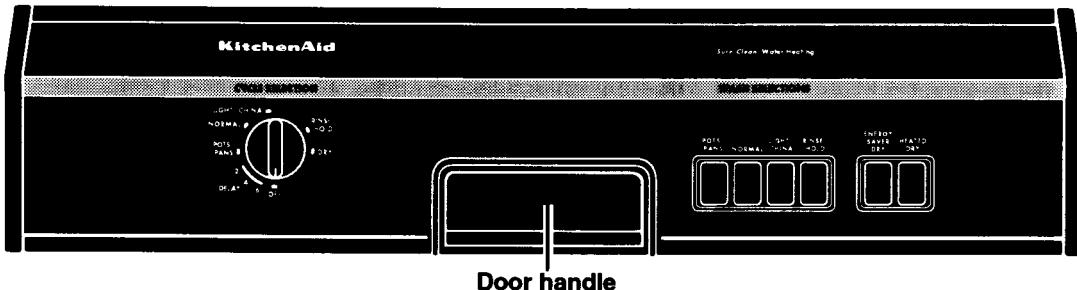
Knowing Your Dishwasher's Features

Below is an illustration of your appliance with the parts and features called out. To help you find information on specific parts or features quickly, page references are included.

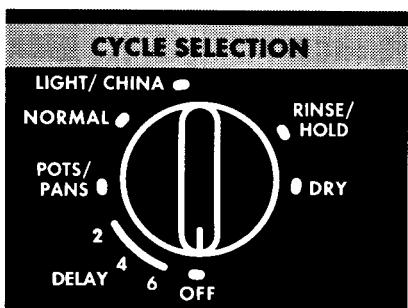


Your KitchenAid® dishwasher has a unique sound reduction system to reduce many common sounds heard while a dishwasher is operating.

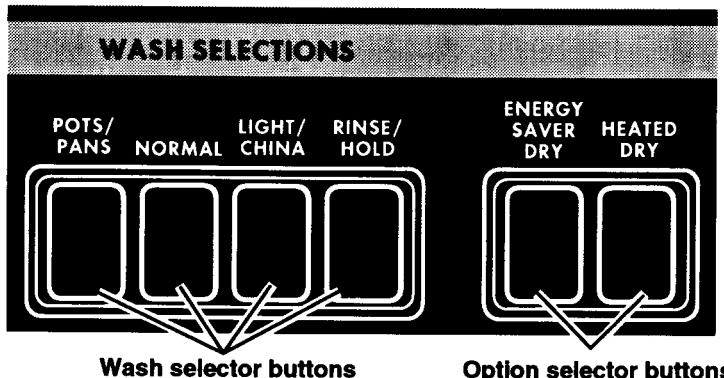
Control panel



Cycle selection dial



Buttons



Operating Your Dishwasher

This section tells you how to operate the dishwasher. Operating your dishwasher properly enables you to obtain the best possible results.

IN THIS SECTION

	Page		Page
Before starting your dishwasher	7	Using the detergent dispenser	11
Starting your dishwasher	7	Using the rinse agent dispenser	12
Cycle selection chart	8	Sure-Clean™ water heating	13
Using delay wash	9	Flo-Thru™ drying system	14
Adding dishes during a cycle	9	Quiet operating tips	14
Canceling a cycle	9	Energy saving tips	14
Changing a cycle setting	10	Tips for washing special items	15
What happens in each option	10		

Before starting your dishwasher

1. Load the dishwasher. See pages 16-18.
2. Spin the spray arms. They should turn freely.
3. Add detergent. See pages 11 and 12.



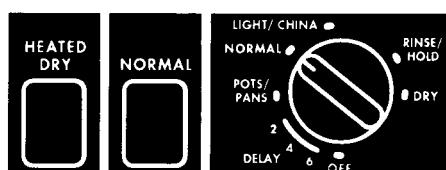
4. Add rinse agent, if needed. See pages 12 and 13.
5. Push door firmly when closing. Latch door by pushing the door handle down.
6. Run hot water at sink nearest dishwasher until water is hot. Turn off water. See page 13.



Starting your dishwasher

The dishwasher will wash and dry dishes according to the selections you make on the control panel.

1. Make sure Cycle Selection dial is turned to OFF.
2. Push a button for the desired option(s). See page 10 for option descriptions.
3. Push the Wash Selection button for the desired cycle. See page 8 for cycle descriptions.
4. Turn Cycle Selection dial to the desired cycle. The dishwasher will start the cycle.



Example for HEATED DRY option,
NORMAL cycle

Cycle selection chart

CYCLE	A "•" shows what steps are in each cycle							TIME (Minutes)	WATER USAGE (Gallons)
	PRE-WASH	RINSE	WASH	MAIN WASH	† PURGE	RINSE	DRY		
POTS/PANS 	•	•		•	•	•	•	82*	9 3/4
Use this cycle for hard-to-clean, heavily soiled pots, pans, and casseroles, along with regular tableware.									
NORMAL 				•	•	•	•	70*	7 3/4
Use this cycle for loads with moderate amounts of food soil. (Energy Guide Label is based on this cycle.)									
LIGHT/CHINA 					•	•	•	58*	5 1/4
Use this cycle for washing and drying loads with light amounts of food soil. NOTE: Check manufacturers' recommendations before washing china and crystal. All cycles may be used to wash and dry dishwasher-safe china and crystal.									
RINSE HOLD 							•	14	2 1/4
Use this cycle for rinsing partial loads of dishware until a full load is accumulated. No detergent is used.									

* Time may vary based on incoming water temperature. Time may run up to 15 minutes longer as dishwasher heats water to the appropriate washing temperature for best washing results.

8 † A small amount of water is run through the pump to remove soil particles between the main wash and final rinse.

Using delay wash

You can delay the start of a cycle for 2, 4, or 6 hours. To delay the start, follow these steps:

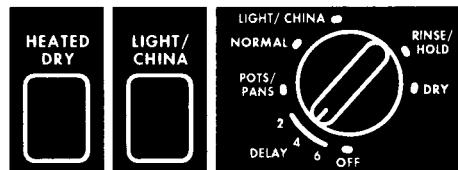
1. Push the desired Option Selector button.
2. Push the Wash Selection button for the desired cycle.
3. Turn the Cycle Selection dial to the desired delay time (2, 4, or 6 hours).

⚠ CAUTION

Product Damage Hazard

If your home is equipped with a water softener, make sure the dishwasher is not timed to start during regeneration of the softener.

Failure to follow these instructions could cause product damage.



Example for LIGHT/CHINA DELAY cycle with HEATED DRY option

Adding dishes during a cycle

You can add an additional item to the dishwasher anytime before the main wash portion of a cycle. See chart on page 8.

1. Unlatch the door to stop the cycle. Wait a moment for the spray action to stop before opening the door.
2. Open the door and add the dishes.
3. Close the door.

4. Push down on the door handle to latch door.
5. Dishwasher starts when the door is latched.

Canceling a cycle

You can cancel a cycle anytime during the cycle.

1. Turn the Cycle Selection dial slowly to the drain portion of the wash or rinse. You will hear water draining when you have advanced to the proper location.
2. Let the dishwasher drain completely.

3. Unlatch the door.
4. Advance the Cycle Selection dial to the OFF position.

The cycle is now canceled.

Changing a cycle setting

You can change a setting anytime during any cycle.

1. Turn the Cycle Selection dial slowly to the drain portion of the wash or rinse. You will hear water draining when you have advanced to the proper location.
2. Let the dishwasher drain completely.
3. Set the Cycle Selection dial to OFF.
4. Unlatch and open the door.
5. Check the detergent dispenser to be sure it is properly filled for the new cycle.
6. Close and relatch the door.
7. Push the Wash Selection button of the chosen cycle and select the desired option.
8. Turn the Cycle Selection dial to the desired cycle. See page 8. The dishwasher will start.

What happens in each option

ENERGY SAVER DRY option

This option will eliminate the heat during the dry portion of a cycle. This option may be used with the POTS/PANS, NORMAL, and LIGHT/CHINA cycles.

The fan of the drying system will continue to operate, helping the dishware to air dry naturally. Under certain conditions, you may find a few drops of water on the dishware and silverware. For best drying results, use a rinse agent.



HEATED DRY option

This option will provide heat during the dry portion of a cycle. A fan blows the heated air onto the dishware.



Using the detergent dispenser

What type of detergent to use

- For best results use only powdered automatic dishwasher detergent. Other detergents are too mild and much too sudsy to work in the dishwasher.
- Follow manufacturer's directions when using concentrated dishwasher detergent.
- Do not add detergent until you are ready to wash.
- Store detergent tightly closed in a cool, dry place. **Fresh automatic dishwasher detergent is necessary for best washing results.**

NOTE: Different brands of dishwasher detergent have different amounts of phosphorus for softening water. If water is hard and phosphorus content is low (6.0% or less), you may need to:

- Use more detergent.
- OR
- Use a brand with a higher phosphorus content (8.7%).

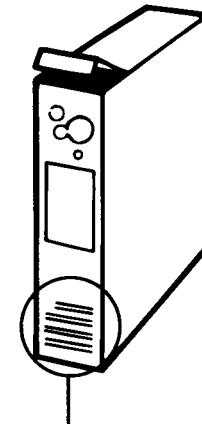
How much detergent to use

The detergent dispenser has one section with a cover and one section without a cover.

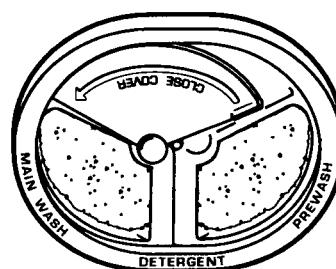
NOTE: Do not use detergent with RINSE HOLD cycle.

1. Fill the dispenser sections with the proper amount of detergent. See chart.
2. Close the Main Wash section cover.

- **ALWAYS** use at least one tablespoon of automatic dishwashing detergent in Main Wash compartment.
- Do not use more than one tablespoon of detergent if you have rinsed or pre-washed the dishes.



See phosphorus content on package labels



Put detergent in only **MAIN WASH** section for **LIGHT/CHINA** cycle.

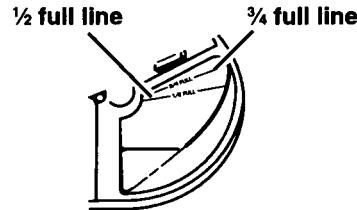
Put detergent in both sections for **POTS/PANS** or **NORMAL** cycles.

See chart for amount.

- If you have hard water, you will have to use more detergent than if you have soft water.
- Excessive amounts of detergent combined with soft water may cause etching of glassware.

NOTE: Contact your local water utility, area water softening company, or state university extension agent to determine your water hardness.

WATER HARDNESS	AMOUNT OF DETERGENT
Soft Water 0-4 grains per gallon	Fill each dispenser to the $\frac{1}{2}$ full line
Medium Hard Water 4-8 grains per gallon	Fill each dispenser to the $\frac{3}{4}$ full line
Hard Water 8-12 grains per gallon	Fill each dispenser completely full



Using the rinse agent dispenser

Keep the rinse agent dispenser filled with a liquid rinse agent. A small amount of rinse agent is automatically released into the rinse water during the final rinse of each cycle.

NOTE: A rinse agent prevents water from forming droplets and drying as spots or streaks. A rinse agent improves drying by allowing water to drain off dishes during the final rinse.

Check the dispenser

For best drying results, remove the dispenser cap and check the dispenser periodically to see if refilling is needed. You do not have to wait until the dispenser is empty to refill it, but do not overfill it.

The rinse agent dispenser will hold 7 fluid ounces of rinse agent. Under normal conditions, this will last about 3 months.

To fill dispenser

1. Make sure the dishwasher door is fully open.
2. Turn the dispenser cap counterclockwise to remove.
3. Do not fill past the smallest opening in the lower part of the dispenser.
If you overfill, excess rinse agent may overflow dispenser and cause over-sudsing.
4. Clean up any spilled rinse agent with a damp cloth.
5. Replace the fill cap and keep cap tightly closed.

NOTE: Because your dishwasher is designed to use a liquid rinse agent, you do not need to use a solid or bar-type rinse agent.



Sure-Clean™ water heating

During the main wash portion of a cycle (excluding RINSE HOLD) the wash water is heated to an appropriate wash temperature. This means that you may turn your home water heater down to provide a minimum of 120°F (49°C) incoming water to the dishwasher. Keeping your water heater at a lower temperature will save you up to 10% of your total household water heating energy costs.

Time needed to heat water

The lower the incoming water temperature, the longer the wash portion of the cycle will run. This is because the cycle will continue to wash while the water is being heated. Higher incoming water temperatures will shorten the water heating time.

NOTE: For best dishwashing results, water should be at least 120°F (49°C) as it enters the dishwasher.

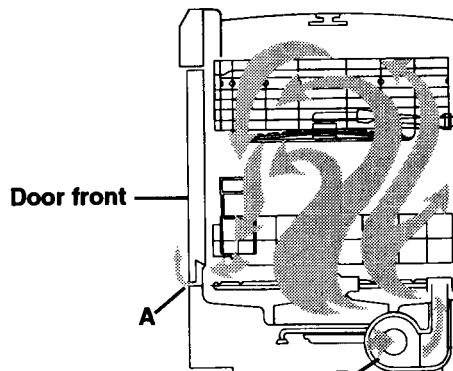
To check water temperature

1. Test water at the faucet closest to your dishwasher.
2. Run hot water for at least one minute into a glass set in the sink, allowing water to overflow.
3. Place a candy or meat thermometer in the glass. Read the thermometer at the maximum setting.
4. If the water temperature is too low, have a qualified person raise the setting on your water heater, if possible.

Flo-Thru™ drying system

A pause period of approximately four minutes at the start of the drying period allows water to drain from dishes. After this pause, a separate motor and fan circulate air throughout the wash chamber.

Occasionally, you may notice steam vapor coming through the door-wide evaporation strip (A) at the bottom of the door. This is normal. The vapor is the result of moisture in the dishwasher being moved by the Flo-Thru Drying System (B). Vapor may be more noticeable in an air conditioned home. The vapor is not harmful and usually dissipates very quickly.



Example shown –
your unit may vary

Quiet operating tips

To avoid thumping and clattering noises during operation:

- Make sure lightweight load items are secured in the rack.
- Make sure pot lids and handles, pizza pans, cookie sheets, etc. do not touch interior walls or interfere with the spray arm rotation.
- Load items so they **do not** touch one another.

NOTE: Keep sink drain plugs inserted during dishwasher operation to prevent noise transfer through drains.

Normal sounds you may hear while dishwasher is running:

- The fill valve opening or closing and the sound of water entering the dishwasher.
- Water being pumped out during drain portion of a cycle.
- Detergent cup opening.
- Timer clicking as it advances.
- Pump motor starting.
- Items being ground up in the hard food disposer.

Energy saving tips

- Do not rinse dishes before loading.
- Use the ENERGY SAVER DRY option whenever possible.
- Turn the temperature setting on your home water heater down to provide a minimum of 120°F (49°C) incoming water to the dishwasher.
- Run the dishwasher only with a full load.

- Use only the cycle and options that you need.
- Run the dishwasher during off-peak hours if your utility company offers reduced rates on electricity during off-peak hours.
- Run the dishwasher at night during the summer to reduce daytime heat build-up in your home.

Tips for washing special items

If you have any doubts about washing a particular item, check with the manufacturer to see if it is dishwasher safe.

MATERIAL	DISHWASHER SAFE?	EXCEPTIONS/SPECIAL INFORMATION
Aluminum	Yes	High water temperature and detergents may affect finish of anodized aluminum.
Bottles and Cans	No	Wash bottles and cans by hand. Labels attached with glue can loosen in your dishwasher. Loose labels and glue can clog spray arms or the pump and will reduce washing performance.
Cast Iron	No	Seasoning will be removed and iron will rust.
China/ Stoneware	Yes	Always check manufacturer's recommendations before washing. Antique, hand-painted, or over-the-glaze patterns may fade. Gold leaf can discolor or fade.
Crystal	Yes	Always check manufacturer's recommendations before washing. Some types of leaded crystal can etch with repeated washings.
Gold	No	Gold-colored flatware will discolor.
Glass	Yes	Milk glass will yellow with repeated dishwasher washing.
Hollow- Handle Knives	No	Handles of some knives are attached to the blade with adhesives which may loosen if washed in the dishwasher.
Pewter	No	High water temperatures and detergent can discolor or pit finish.
Disposable Plastics	No	Cannot withstand high water temperatures and detergents.
Plastics	Yes	Always check manufacturer's recommendations before washing. Plastics vary in their capacity to withstand high water temperatures and detergents. Load plastics in top rack only.
Stainless Steel	Yes	Run a RINSE HOLD cycle if not washing immediately. Prolonged contact with food containing salt, vinegar, milk products, or fruit juice could damage finish.
Sterling Silver or Silver Plate	Yes	Run a RINSE HOLD cycle if not washing immediately. Prolonged contact with food containing salt, acid, or sulfide (eggs, mayonnaise, and seafood) could damage finish.
Tin	No	Can rust.
Wooden Ware	No	Always check manufacturer's recommendations before washing. Untreated wood can warp, crack, or lose its finish.

Loading Your Dishwasher

This section tells you how to properly load your dishwasher for the best washing and rinsing results.

IN THIS SECTION

	Page		Page
Preparing to load the dishwasher	16	Loading the lower rack	17
Loading the upper rack	16	Loading the silverware basket	18
Adjusting the upper rack	17		

Preparing to load the dishwasher

- To save water and energy, do not rinse dishes before putting them into the dishwasher.
- Scrape leftover food, bones, toothpicks, and other hard items from dishes.
- Foods like eggs, rice, pasta, spinach, and cooked cereals may be hard to remove if they are left to dry over a period of time.

Run a RINSE HOLD cycle to keep dishes moist if you do not plan to wash them soon.

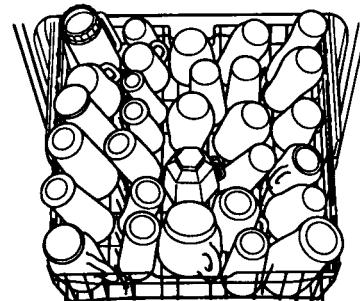
- Load dishes so soiled surfaces face the rotating wash arm.
- Load dishes so they are not stacked or overlapping, if possible. It is important for the water spray to reach all soiled surfaces. For best drying, water must be able to drain from all surfaces.

Loading the upper rack

The upper rack is designed for cups, glasses, and smaller items.

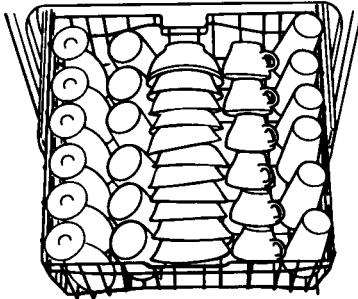
- Place so open ends face down for cleaning and draining.
- Load glasses in upper rack only—lower rack is not designed for glasses. Damage may occur.
- Place items in the rows over the prongs.
- Be sure lightweight items are held firmly in place.
- China, crystal, and other delicate items must not touch each other during dishwasher operation. Damage may occur.

Cup and glass load



- Load plastic items in the upper rack only. Only plastic items marked "dishwasher safe" are recommended.
- Load plastic items so the force of the spray does not move them during the cycle.
- To avoid chipping, do not let stemware touch other items.
- Small bowls and other dishes can be placed in the upper rack.

Mixed load



Adjusting the upper rack

Your KitchenAid® dishwasher features a 16-position upper rack which may easily be adjusted when either empty or full.

1. Pull the upper rack out so knobs on either side of rack are easy to reach.

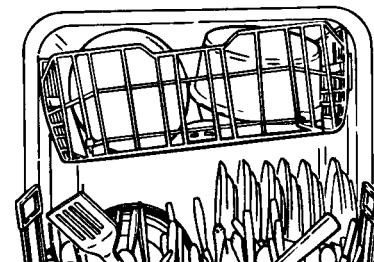
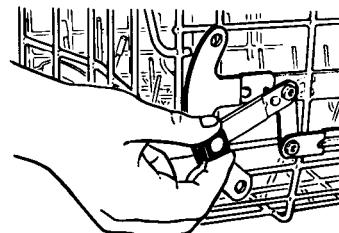
2. Pull the knob on side of rack out from retainer plate. Raise or lower the rack adjusting lever to desired rack level.

3. Place knob pin in one of the four retainer holes.

Raise the upper rack when loading platters, trays, large roasting pans, and other baking utensils in the lower rack.

Lower the upper rack when loading pitchers, deep bowls, and tall stemware in the upper rack.

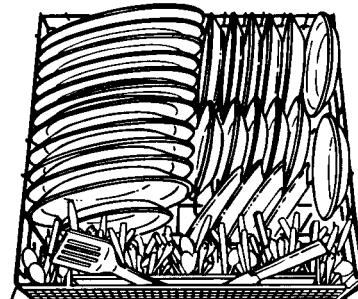
Either side of the rack may be raised or lowered independently of the other to accommodate extra large items in both racks.



Loading the lower rack

Items with cooked-on or dried-on food should be loaded in the lower rack, with soiled surfaces facing inward to the spray.

- For maximum capacity and stability of an all-plate load, overlap small plates on right side, as shown.
- Cereal/soup bowls may be loaded in a variety of ways, depending upon the shape of the bowls.
- Plates may be loaded front to back or side to side with pots, pans, and large cookware.
- Do not load items between the bottom rack and the dishwasher tub. This can block the water inlet opening.



Loading the silverware basket

- Load the silverware basket while it is in the lower rack or take the basket out for loading on a counter or table.

NOTE: The basket can also be removed for easy unloading. Always unload or remove the basket before unloading the racks to avoid spilling water droplets on the silverware.

- Mix items in each section of the basket—some pointing up and some down. However, always load sharp items (knives, skewers, forks, etc.) pointing down.

- Load forks and spoons so they don't nest together. Spray cannot reach nested items.
- The cutlery section in the front of the basket is for long-handled utensils and long knives.

NOTES:

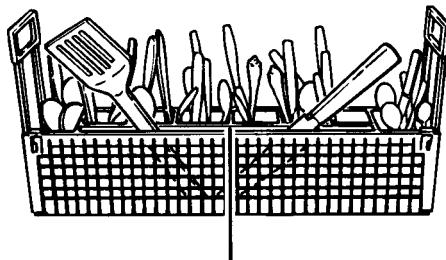
- Silver and stainless-steel flatware can be damaged if washed while in contact with one another.
- Silver and stainless-steel flatware can also be damaged if exposed to foods containing salt, vinegar, milk products, or fruit juices for long periods of time. Use the RINSE HOLD cycle if flatware is not washed immediately after use.

! WARNING

Personal Injury Hazard

Sharp utensils should be loaded with the point down.

Failure to do so could cause personal injury.



Cutlery section



Caring for Your Dishwasher

Your new dishwasher is designed to give you many years of dependable service. However, there are a few things you are expected to do in order to maintain your dishwasher properly. This section tells you how to clean and care for your dishwasher.

IN THIS SECTION

Page	Page
Sure-Scrub™ wash system 19	Storing your dishwasher 20
Overflow protection float 19	The drain air gap 21
Cleaning your dishwasher 20	

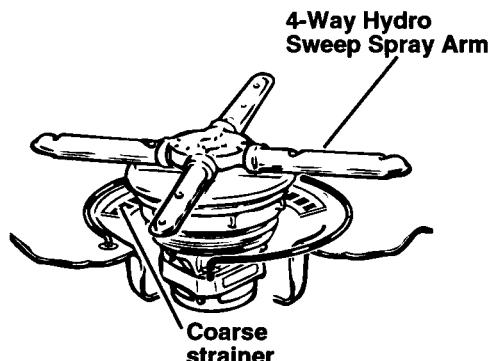
Sure-Scrub™ wash system

The Sure-Scrub Wash System in your dishwasher provides excellent cleaning results. The wash water is continuously filtered by a triple filtration and soil collector system to prevent food particles from redepositing on clean dishes. The filter continuously filters the wash water and traps the food particles that have been removed from the dishes.

These trapped food particles are removed from the ultrafine filter by four water jets underneath the 4-Way Hydro Sweep Spray Arm.

The coarse strainer prevents bones, pits, and other large objects from entering the pump system. Occasionally check the strainer for such items that may have mistakenly entered the dishwasher.

NOTE: A small amount of water always remains under the ultrafine filter to keep the pump seal moist.



Overflow protection float

The Overflow Protection Float in the front left corner of the dishwasher tank prevents the dishwasher from overflowing. The float must be in place for the dishwasher to operate.

Check under the float for objects that may prevent the float from moving up or down.



Check under
overflow
protection float

Cleaning your dishwasher

Cleaning the interior

The porcelain enamel interior of your dishwasher will seldom need cleaning. However, if mineral deposits from hard water accumulate, clean the interior with a mild scouring powder or follow the suggestions indicated in the "Removing spots and film" section on page 28.

DO NOT USE any type of cleanser that may cause foaming or sudsing. **USE** cleansers made for stainless-steel products.

Wipe door seal regularly with a damp cloth to remove food residue.

NOTE: Run the dishwasher through a normal cycle with detergent after cleaning the interior.

Cleaning the exterior

Wipe the control panel with a damp cloth, then dry. **Never** use abrasive detergents or powdered cleansers which may scratch the finish.

Clean the front and sides with a soft cloth and a mild, nonabrasive soap and water solution. Dry with a soft cloth.

Storing your dishwasher

Storing for the winter

!CAUTION

Property Damage Hazard

Protect dishwasher and water lines against freezing.

Failure to do so can cause water damage.

To safeguard your KitchenAid® dishwasher when it is exposed to freezing temperatures in a seasonal dwelling, refer to the Installation Instructions and have a qualified person do the following:

3. Shut off water supply. Place pan under fill valve and disconnect fill valve at both inlet and outlet sides. Drain water into pan.
4. Place a pan under the check valve outlet, and disconnect the flexible tubing at the check valve. Drain machine water into pan. Leave fill and check valve disconnected.

To restore service, reconnect the fill valve and the flexible tubing at the check valve. Turn on the electrical power supply and the water supply. Close and latch the door. Select the NORMAL cycle and let the machine complete the cycle. Check connections to make sure they are water tight and do not leak.

1. Close and latch the door.
2. Turn off electrical power supply to the dishwasher.

Storing for the summer

Two simple steps will safeguard your KitchenAid® dishwasher during an idle summer:

1. Turn off the water supply.
2. Turn off the electrical power supply to the dishwasher.

The drain air gap

Check the drain air gap anytime your dishwasher isn't draining well.

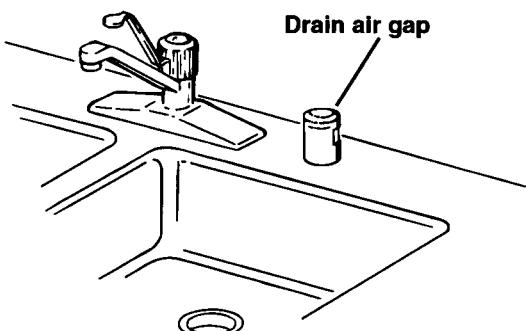
Some state or local plumbing codes require the addition of a drain air gap between a built-in dishwasher and the home drain system. This device protects your dishwasher against water backing up into it when a drain clogs.

The drain air gap is usually located on top of the sink or countertop near the dishwasher. To order drain air gap accessory part number 300096, contact your local KitchenAid dealer or call 1-800-422-1230.

NOTE: The drain air gap is an external plumbing device that is not part of your KitchenAid dishwasher. The warranty provided with your dishwasher does not cover service costs directly associated with the cleaning or repair of the external drain air gap.

To clean the drain air gap:

Clean the drain air gap periodically to ensure proper drainage of your dishwasher. Follow drain air gap cleaning instructions provided by the manufacturer. With most types, just lift off the chrome cover, unscrew the plastic cap, and then check for any buildup of soil. Clean, if necessary.



Changing Front Panels

Your new KitchenAid® dishwasher comes with a reversible front panel. You may choose from black or white (front and back of panel) or build a custom panel. See "Optional front panels" on page 24 if you want to use custom front panels.

IN THIS SECTION

Page	Page
Changing the front panels 22	Optional front panels 24

Changing the front panels

WARNING

Personal Injury Hazard

Wear gloves and handle panels carefully. Failure to do so can result in cuts to hands or other parts of your body.

If you want to change the color of the panels, follow one of the options below:

WARNING

Electrical Shock Hazard

Disconnect electrical power supply to dishwasher before changing panels.

Failure to do so can result in death by electric shock.

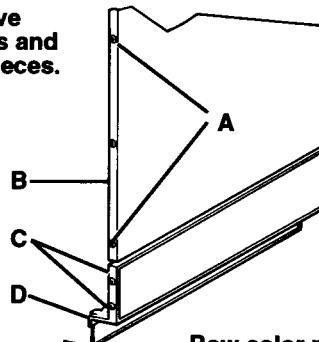
OPTION A

Use these directions when dishwasher front protrudes several inches from the cabinets.

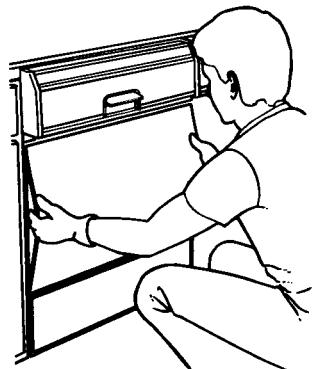
Upper Panel:

1. Disconnect electrical power supply.
2. On each side of the door, remove the three screws (A) from the side trim (B), then remove the trim.
3. Use both hands to bow the right and left sides of the color panel. Be careful not to scratch or bend the color panel. Pull the color panel down from behind the control panel, then lift color panel out of bottom trim.
4. Turn the panel to the desired color. Slide the top of the color panel behind the control panel. Bow the right and left sides of the color panel and slide the bottom of the color panel behind the bottom trim.
5. Replace side trim (B) and the three screws (A) on each side of the dishwasher door.

Remove screws and trim pieces.



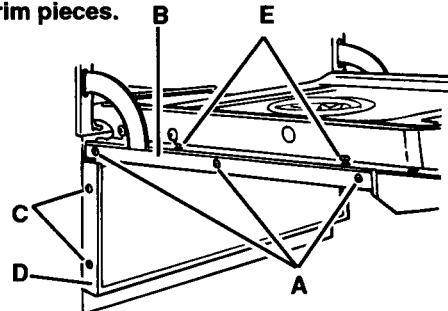
Bow color panel out.



Lower Panel:

1. With the door closed, remove the two screws (C) on either side of the lower panel. Remove the loosened piece of trim (D).
2. Slide the color panel out. Handle the panel carefully to avoid scratching or bending the panel. Turn the panel to the desired color. Slide the color panel in position.
3. Replace trim (D) and two screws (C).
4. Reconnect electrical power supply.

Remove screws and trim pieces.



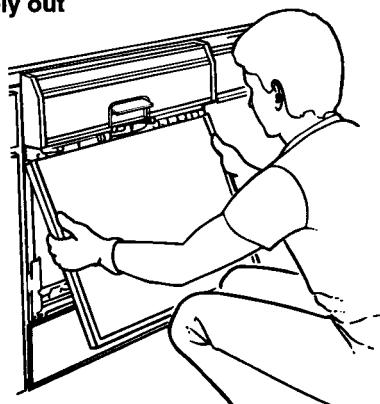
OPTION B

Use these directions when the dishwasher front is flush with the cabinets.

Upper Panel:

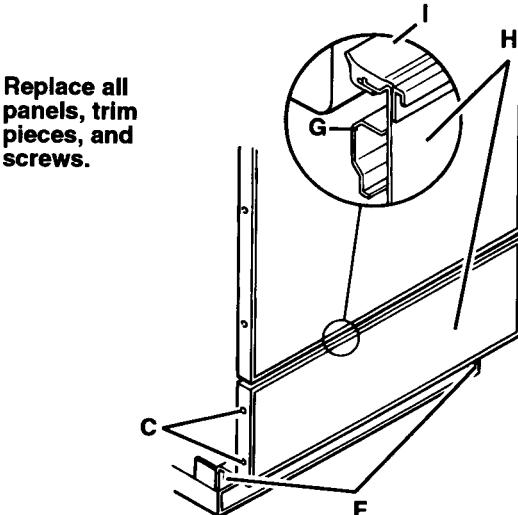
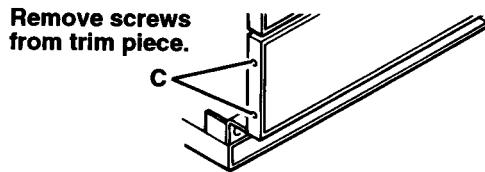
1. Disconnect electrical power supply.
2. Open the door. On each side of the door, remove the two screws (E) which secure the panel assembly.
3. Close door while holding panel assembly in place. Pull out lower edge of assembly until top edge drops down.
4. Place panel assembly on a smooth, flat surface. Remove three screws (A) from either side of panel to remove the trim strip (B).
5. Slide the color panel out. Handle the panel carefully to avoid scratching or bending the panel. Turn the panel to the desired color. Slide the color panel into position.
6. Replace the trim strip and the three screws.
7. With hands placed at sides of panel, slide the top edge of the panel assembly up into position under the control panel.
8. Hold the panel assembly in place and open the door.
9. Hold panel assembly in position with one hand. Replace the two screws (E) on each side of the dishwasher door.

Pull lower edge of panel assembly out and down.



Lower Panel:

1. Remove two screws (F) located under panel assembly.
2. With hands placed under ends of panel assembly (H), turn out and lift assembly off of support bracket (G).
3. Place panel assembly on a smooth, flat surface and remove the two screws (C) from either side of the trim. Remove the loosened piece of trim.
4. Slide the color panel out. Handle the panel carefully to avoid scratching or bending the panel. Turn the panel to the desired color. Slide the color panel into position.
5. Replace the trim and screws (C).
6. Taking the assembled lower panel (H), insert the top of the assembly onto the support bracket (G) until the seal (I) on the lower panel assembly is seated properly against the dishwasher tank.
7. Replace the screws (F).
8. Check that upper and lower panels are secure.
9. Reconnect electrical power supply.



Optional front panels

Wood and decorative panels

The front trim will accommodate a custom wood front or a decorative panel insert, $\frac{1}{4}$ inch thick, weighing no more than 10 pounds. Any wood panel or decorative panel weighing over 4 pounds requires heavy-duty door springs.

For more information on installing a custom wood front, refer to the Dishwasher Installation Instructions. If you have misplaced these instructions, or to order heavy-duty springs (part number 9741247), contact your local KitchenAid® dealer or call 1-800-422-1230.

Solid colors

If the two colors provided with your dishwasher do not match your kitchen decor, optional panels are available from your KitchenAid dealer in a variety of decorator colors.

CAUTION

Product Damage

- Heavy duty door spring kit, part number 9741247, must be used with custom panels that weigh more than 4 pounds. Order kit from your dealer or authorized parts distributor.
- Maximum door panel weight is 10 pounds.

Failure to follow these instructions could cause product damage.

Solving Common Dishwashing Problems

This section explains how you can handle minor performance problems. Check this list before calling for service. If you can't solve your dishwasher's problem, turn to page 31 for service information.

IN THIS SECTION

	Page		Page
Solution chart	25	Removing spots and film	26

Solution chart

PROBLEM	CAUSE	SOLUTION
Food soil left on dishes	Slowdown of spray arm due to high suds	Never use soap or laundry detergents. Use recommended dishwasher detergents only. Do not overfill rinse agent dispenser. Wipe up rinse agent spills before running a cycle.
	Improper loading	Follow loading instructions on pages 16-18.
	Insufficient fill due to low water pressure	Home water pressure should be 20 to 120 pounds per square inch (psi) for proper dishwasher fill. A booster pump on the water supply may be necessary if pressure is too low.
	Use of incorrect, too little, or ineffective detergent	Use recommended dishwasher detergents only. Follow recommendations on page 11 for amounts; never use less than one tablespoon per load. Detergent must be fresh to be effective. Always store detergent tightly-closed in a cool, dry place.
	Detergent cakes in dispenser	Use fresh detergent only. Do not allow detergent to sit for several hours in a wet dispenser. Check dispenser for caked detergent. Clean dispenser when caked detergent is present.
	Water temperature too low	Turn home water heater up to ensure water entering dishwasher is 120°F (49°C) minimum. See recommended procedure in "Sure-Clean™ water heating" on page 13.

PROBLEM	CAUSE	SOLUTION
Cycle takes extremely long time	Water temperature is too low	Turn home water heater up to ensure water entering dishwasher is 120°F (49°C) minimum. See recommended procedure in "Sure-Clean™ water heating" on page 13.
Spotting and filming	Hard water or high mineral content in water	Use rinse agent to help eliminate spotting and filming. See page 12. To remove hard water film, see "Removing spots and film" on page 28.
	Water temperature is too low	Turn home water heater up to ensure water entering dishwasher is 120°F (49°C) minimum. See recommended procedure in "Sure-Clean water heating" on page 13.
	Use of incorrect detergents	Use recommended dishwasher detergents only.
	Incorrect amount of detergent	Follow recommendations on page 11 for amount. Heavy soil and/or hard water generally require extra detergent.
	Use of ineffective detergents	Use fresh detergent. Always store detergent tightly-closed in a cool, dry place. Discard lumpy detergent.
	Insufficient fill due to low water pressure	Home water pressure should be 20 to 120 psi for proper dishwasher fill. A booster pump on the water supply may be necessary if pressure is too low.
Dishes do not dry completely	Water temperature is too low	Turn home water heater up to ensure water entering dishwasher is 120°F (49°C) minimum. See recommended procedure in "Sure-Clean water heating" on page 13.
	Dishes do not drain properly	Dishes must have proper water drainage. Do not overload. Follow instructions for loading dishwasher on pages 16-18. Use a liquid rinse agent to speed drying.
	Rinse agent not used	Keep rinse agent dispenser filled. See pages 12-13.
	Plastics	Some plastics, due to material, may need to be towel dried.

PROBLEM	CAUSE	SOLUTION
Silica film or etching (silica film is a white milky looking deposit; etching is a cloudy film)	Rinse agent not used A water chemical reaction with certain types of glassware – usually caused by some combination of soft or softened water, alkaline washing solutions, insufficient rinsing, excessive detergent, and over-loading the dishwasher.	Keep rinse agent dispenser filled. See pages 12-13. It may not be possible to prevent problems, except by hand washing. To slow this process, use a minimum amount of detergent but not less than one tablespoon per load. Use a liquid rinse aid and underload the dishwasher to allow thorough rinsing. Silica film and etching are permanent and cannot be removed. Use the ENERGY SAVER DRY option.
Black or gray marks on dishes	Aluminum items touching dishes	Load aluminum pieces so that they will not rub against dishes during washing. Do not wash throw-away aluminum items in the dishwasher. Remove aluminum markings by using a mild abrasive cleanser.
Brown stains on dishes and dishwasher interior	High iron content in water supply	Remove food soil from dishes. Add 1 teaspoon to 1 tablespoon of citric acid crystals to the Main Wash compartment of detergent dispenser. Wash dishes with a NORMAL cycle without detergent. Follow with a NORMAL cycle with detergent. If treatment is needed more often than every other month, the installation of an iron removal unit is recommended.
White spots on cookware with non-stick finish	Seasoning removed by dishwasher detergents	Re-season cookware after dishwasher washing.
Odor in the dishwasher	Dishes only washed every two to three days	Run a RINSE HOLD cycle at least once or twice a day until a full load is accumulated.
Chipping of dishes	Improper loading	Load dishes and glasses so they are stable and do not strike together from washing action. Moving racks in and out smoothly will also minimize chipping. NOTE: Some types of china and glassware are too delicate for automatic dishwashing and should be hand-washed; for example: antiques, feather-edged crystal, and similar items.

Removing spots and film

Keep the rinse agent dispenser filled with a liquid rinse agent. A rinse agent prevents water from forming droplets and drying as spots or streaks.

To remove spots and film on dishes and glasses, or hard water film/lime buildup on the interior of the dishwasher, you may use white vinegar with the following procedure:

1. Load clean dishes and glasses in dishwasher in regular manner. Do not load silverware or other metals in the dishwasher.
2. Close and latch door.
3. Select the NORMAL cycle and the ENERGY SAVER DRY option. Do not use detergent.
4. Allow dishwasher to run through the first wash. When the dishwasher has filled for main wash portion of cycle, unlatch and open door.
5. Pour 2 cups of household vinegar into the dishwasher.
6. Close and latch door.
7. With the ENERGY SAVER DRY option selected, push the START button.

NOTE: This procedure is intended for occasional use only. Vinegar is an acid. Excessive use may damage your dishwasher.

Troubleshooting

Before calling for service ...

If your appliance fails to operate, review the following list and the "Solving Common Dishwashing Problems" section on page 25 before calling your dealer. This could save you the cost of a service call.



Is the door latched?



Have you blown a fuse or tripped a circuit breaker?



Is your water turned on?

If you need more help, check the chart below.

PROBLEM	CHECK THE FOLLOWING
Dishwasher does not run or stops during a cycle	<p>Is the door tightly closed and securely latched?</p> <p>Has the cycle been set correctly? See page 8.</p> <p>Has a household fuse or circuit breaker blown or tripped?</p> <p>If the motor has stopped because of an overload, it will automatically reset itself within a few minutes. If the motor does not start, call for service.</p> <p>Is the water supply turned on?</p> <p>Is the dishwasher wired into a live circuit with the proper voltage?</p>

PROBLEM	CHECK THE FOLLOWING
Dishwasher seems to run too long	The dishwasher will run longer while heating the water. This is normal for lower incoming water temperatures. See page 13.
Dishwasher will not fill	Is overflow protection float stuck in "up" position? Overflow protection float should move up and down freely. Press down to release. See page 19.
Water remains in dishwasher	Wait for the cycle to finish. A small amount of water remaining is normal. Check the drain air gap (if installed). If it is clogged, follow the manufacturer's cleaning instructions. See page 21.
Dishes and glass not clean	See "Food Soil Left on Dishes" section of "Solution chart" on page 25.
White film on dishes	See "Spotting and Filming" section of "Solution chart" on page 26.
Steam from door	This is normal when dishwasher is in drying portion of cycle. See "Flo-Thru" drying system" on page 14.
Detergent remains in covered detergent cup	Has the cycle completed? Is the detergent fresh and dry without lumps? Is overflow protection float stuck in "up" position? Overflow protection float should move up and down freely. Press down to release. See page 19.
Dishes are not as dry as you expected	Is the rinse agent dispenser empty? Using a rinse agent greatly improves drying. See page 12-13. Do not use ENERGY SAVER DRY option on the next load. See page 10.
Grinding, grating, crunching, or buzzing sounds	Has a hard object entered the pump? The sound should stop when the object is ground up. If it does not stop after the next cycle, call for service.
White residue appears on front of access panel	Is too much detergent being used? See page 11 for recommended amounts of detergent. Some detergents develop excess foam and can build up on the access panel. Try using less detergent or a different brand to reduce foaming and eliminate buildup.

If You Need Assistance or Service

1. If you need assistance*...

- Call KitchenAid Consumer Assistance Center:

1-800-422-1230

One of our trained consultants can instruct you in how to obtain satisfactory operation from your appliance or, if service is necessary, recommend a qualified service company in your area.

- If you prefer, write to:

Consumer Assistance Center
KitchenAid
2000 North M-63
Benton Harbor, MI 49022-2692

2. If you need service*...

- Call your dealer or the repair service recommended.
- All service should be handled locally by the dealer from whom you purchased the unit or an authorized KitchenAid servicer.
- If you are unable to obtain the name of a local authorized KitchenAid servicer, call our Consumer Assistance Center telephone number (see Step 1).

3. If you are not satisfied with the action taken:

- Contact the Major Appliance Consumer Action Panel (MACAP). MACAP is a group of independent consumer experts that voices consumer views at the highest levels of the major appliance industry.
- Contact MACAP only when the dealer, authorized servicer, and KitchenAid have failed to resolve your problem.

Major Appliance Consumer Action Panel
20 North Wacker Drive
Chicago, IL 60606

- MACAP will in turn inform us of your action.

*When asking for help or service:

Please provide a detailed description of the problem, your appliance's complete model and serial numbers, and the purchase date. (See page 2.) This information will help us respond properly to your request.

Don't forget, KitchenAid offers a full line of quality home appliances.

Built-in Refrigerators	Trash Compactors	Ranges & Cooktops
Freestanding Refrigerators	Hot Water Dispensers	Microwave Ovens
50-Pound Ice Makers	Food Waste Disposers	Washers & Dryers
Dishwashers	Built-in Ovens	Mixers & Blenders

For more information on these appliances, or the one you have purchased, call our toll-free Consumer Assistance Center telephone number, **1-800-422-1230**.

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Dishwasher

Warranty

LENGTH OF WARRANTY:	KITCHENAID WILL PAY FOR:	KITCHENAID WILL NOT PAY FOR:
ONE YEAR FULL WARRANTY FROM DATE OF INSTALLATION.	Replacement parts and repair labor to correct defects in materials or workmanship. Service must be provided by an authorized KitchenAid servicing outlet.	<p>A. Service calls to:</p> <ol style="list-style-type: none"> 1. Correct the installation of the dishwasher. 2. Instruct you how to use the dishwasher. 3. Replace house fuses or correct house wiring. 4. Correct house plumbing. <p>B. Repairs when dishwasher is used in other than normal home use.</p> <p>C. Damage resulting from accident, alteration, misuse, abuse, improper installation, or installation not in accordance with local electrical and plumbing codes.</p> <p>D. Any labor costs during the limited warranty.</p> <p>E. Replacement parts or repair labor costs for units operated outside the United States.</p> <p>F. Pickup and delivery. This product is designed to be repaired in the home.</p> <p>G. Repairs to parts or systems caused by unauthorized modifications made to the appliance.</p>
SECOND THROUGH FIFTH YEAR LIMITED WARRANTY FROM DATE OF INSTALLATION.	Replacement parts for the one-half horsepower motor if defective in materials or workmanship. Replacement parts for the upper or lower dish rack if the rack rusts due to defective materials or workmanship.	
TWENTY-FIVE YEAR FULL WARRANTY FROM DATE OF INSTALLATION.	Replacement parts and repair labor for the TriDura™ Porcelain-on-steel tank or inner door if the tank or inner door develops water leak caused by rust through as a result of defective materials or workmanship.	

KITCHENAID DOES NOT ASSUME ANY RESPONSIBILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this exclusion and limitation may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

If you need service, first see the "Troubleshooting" section of this book. After checking "Troubleshooting," additional help can be found by checking the "If You Need Assistance or Service" section, or by calling our Consumer Assistance Center telephone number, **1-800-422-1230**, from anywhere in the U.S.A.

KitchenAid

Benton Harbor, MI, U.S.A. 49022-2692

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